

**WHAT IS CLAIMED IS:**

- 1           1.       A method comprising:  
2           advancing a member into a nucleus pulposus of an intervertebral disc by blunt  
3           dissection, the nucleus pulposus having a volume, and  
4           applying radiofrequency energy from the member to decrease the volume of the  
5           nucleus pulposus.
- 1           2.       The method of claim 1 wherein applying radiofrequency energy removes  
2           material of the nucleus pulposus.
- 1           3.       The method of claim 1 wherein applying radiofrequency energy removes  
2           water of the nucleus pulposus.
- 1           4.       The method of claim 1 wherein applying radiofrequency energy removes disc  
2           tissue of the nucleus pulposus.
- 1           5.       The method of claim 2 or 3 wherein applying radiofrequency energy removes  
2           disc tissue of the nucleus pulposus.
- 1           6.       The method of claim 1, 2, 3, or 4 wherein applying radiofrequency energy  
2           from the member to decrease the volume of the nucleus pulposus reduces pressure in the  
3           intervertebral disc.
- 1           7.       The method of claim 1, 2, 3, or 4 wherein applying radiofrequency energy to  
2           decrease the volume of the nucleus pulposus comprises ablating material of the nucleus  
3           pulposus.
- 1           8.       The method of claim 1, 2, 3, or 4 further comprising denervating at least a  
2           portion of the intervertebral disc with the applied radiofrequency energy.

1           9.       The method of claim 1, 2, 3, or 4 wherein advancing the member comprises  
2   advancing the member through an introducer.

1           10.      The method of claim 1, 2, 3, or 4 wherein advancing the member comprises  
2   advancing the member beyond a central region of the nucleus pulposus.

1           11.      The method of claim 1, 2, 3, or 4 wherein applying radiofrequency energy  
2   comprises applying radiofrequency energy from an electrode of the member.

1           12.      The method of claim 11 further comprising advancing the electrode beyond an  
2   introducer.

1           13.      The method of claim 11 further comprising providing the member with a  
2   bipolar electrode configuration.

1           14.      The method of claim 1 further comprises applying rotation to a proximal  
2   region of the member to rotate a distal region of the member within the nucleus pulposus.

1           15.      The method of claim 1 or 14 further comprising positioning a portion of the  
2   member at an inner wall of an annulus fibrosus of the intervertebral disc.

1           16.      The method of claim 1 or 14 wherein advancing the member  
2   comprises advancing the member along a curved path.

1           17.      The method of claim 1 further comprising providing the member with a total  
2   length between 5 and 24 inches.

1           18.      The method of claim 1 further comprising providing the member in the form  
2   of a catheter.

1           19.      The method of claim 1, 2, 3, or 4 wherein applying radiofrequency energy  
2   comprises applying radiofrequency energy to an inner wall of an annulus fibrosus.

1           20.     The method of claim 1, 2, 3, or 4 wherein applying radiofrequency energy  
2     comprises applying radiofrequency energy while the member is positioned at a location  
3     adjacent an inner wall of an annulus fibrosus.

1           21.     The method of claim 1, 2, 3, or 4 wherein applying radiofrequency energy  
2     comprises applying radiofrequency energy to multiple locations in the intervertebral disc.

1           22.     The method of claim 21 wherein applying radiofrequency energy to multiple  
2     locations comprises applying radiofrequency energy to the multiple locations simultaneously.

1           23.     The method of claim 21 wherein applying radiofrequency energy to multiple  
2     locations comprises applying radiofrequency energy to the multiple locations using separate  
3     energy delivery elements of the member.

1           24.     The method of claim 21 wherein applying radiofrequency energy to multiple  
2     locations comprises applying radiofrequency energy to the multiple locations serially.

1           25.     The method of claim 21 wherein applying radiofrequency energy to multiple  
2     locations comprises applying radiofrequency energy to the multiple locations using a single  
3     energy delivery element of the member.

1           26.     The method of claim 1, 2, 3, or 4 further comprising advancing the member  
2     along an inner wall of an annulus fibrosus.

1           27.     A method comprising:  
2         advancing a member through a nucleus pulposus of an intervertebral disc beyond a  
3         central region of the nucleus pulposus, the nucleus pulposus having a volume, and  
4         applying radiofrequency energy from the member to decrease the volume of the  
5         nucleus pulposus.

1           28.     The method of claim 27 wherein applying radiofrequency energy removes  
2     material of the nucleus pulposus.

1           29.     The method of claim 27 wherein applying radiofrequency energy removes  
2     water of the nucleus pulposus.

1           30.     The method of claim 27 wherein applying radiofrequency energy removes  
2     disc tissue of the nucleus pulposus.

1           31.     The method of claim 28 or 29 wherein applying radiofrequency energy  
2     removes disc tissue of the nucleus pulposus.

1           32.     The method of claim 27, 28, 29, or 30 wherein applying radiofrequency  
2     energy from the member to decrease the volume of the nucleus pulposus reduces pressure in  
3     the intervertebral disc.

1           33.     The method of claim 27, 28, 29, or 30 wherein applying radiofrequency  
2     energy to decrease the volume of the nucleus pulposus comprises ablating material of the  
3     nucleus pulposus.

1           34.     The method of claim 27, 28, 29, or 30 further comprising denervating at least  
2     a portion of the intervertebral disc with the applied radiofrequency energy.

1           35.     The method of claim 27, 28, 29, or 30 wherein advancing the member  
2     comprises advancing the member through an introducer.

1           36.     The method of claim 27, 28, 29, or 30 wherein applying radiofrequency  
2     energy comprises applying radiofrequency energy from an electrode of the member.

1           37.     The method of claim 36 further comprising advancing the electrode beyond an  
2     introducer.

1           38.     The method of claim 36 further comprising providing the member with a  
2     bipolar electrode configuration.

1           39.     The method of claim 27 further comprising applying rotation to a proximal  
2     region of the member to rotate a distal region of the member within the nucleus pulposus.

1           40.     The method of claim 27 or 39 further comprising positioning a portion of the  
2     member at an inner wall of an annulus fibrosus of the intervertebral disc.

1           41.     The method of claim 27 or 39 wherein advancing the member comprises  
2     advancing the member along a curved path.

1           42.     The method of claim 27 further comprising providing the member with a total  
2     length between 5 and 24 inches.

1           43.     The method of claim 27 further comprising providing the member in the form  
2     of a catheter.

1           44.     The method of claim 27, 28, 29, or 30 wherein applying radiofrequency  
2     energy comprises applying radiofrequency energy to an inner wall of an annulus fibrosus.

1           45.     The method of claim 27, 28, 29, or 30 wherein applying radiofrequency  
2     energy comprises applying radiofrequency energy while the member is positioned at a  
3     location adjacent an inner wall of an annulus fibrosus.

1           46.     The method of claim 27, 28, 29, or 30 wherein applying radiofrequency  
2     energy comprises applying radiofrequency energy to multiple locations in the intervertebral  
3     disc.

1           47.     The method of claim 46 wherein applying radiofrequency energy to multiple  
2     locations comprises applying radiofrequency energy to the multiple locations simultaneously.

1           48.     The method of claim 46 wherein applying radiofrequency energy to multiple  
2     locations comprises applying radiofrequency energy to the multiple locations using separate  
3     energy delivery elements of the member.

1           49.     The method of claim 46 wherein applying radiofrequency energy to multiple  
2     locations comprises applying radiofrequency energy to the multiple locations serially.

1           50.     The method of claim 46 wherein applying radiofrequency energy to multiple  
2     locations comprises applying radiofrequency energy to the multiple locations using a single  
3     energy delivery element of the member.

1           51.     The method of claim 27, 28, 29, or 30 further comprising advancing the  
2     member along an inner wall of an annulus fibrosus.

1           52.     A method comprising:  
2             advancing a radiofrequency electrode into a nucleus pulposus of an intervertebral disc  
3     by blunt dissection, the nucleus pulposus having a volume, and  
4             activating the electrode to decrease the volume of the nucleus pulposus.

1           53.     The method of claim 52 wherein activating the electrode to decrease the  
2     volume of the nucleus pulposus reduces pressure in the intervertebral disc.

1           54.     The method of claim 52 or 53 wherein activating the electrode to decrease the  
2     volume of the nucleus pulposus comprises ablating material of the nucleus pulposus.

1           55.     The method of claim 52 or 53 wherein advancing the electrode comprises  
2     advancing the electrode beyond a central region of the nucleus pulposus.

1           56.     The method of claim 52 wherein advancing the electrode further comprises  
2     advancing a bipolar electrode configuration.

1           57.     The method of claim 52 or 56 further comprising positioning the electrode at  
2     an inner wall of an annulus fibrosus of the intervertebral disc.

1           58.     The method of claim 52 or 56 wherein advancing the electrode  
2     comprises advancing the electrode along a curved path.

1           59.     The method of claim 52 or 53 wherein activating the electrode comprises  
2     activating the electrode while the electrode is positioned at a location adjacent an inner wall  
3     of an annulus fibrosus.

1           60.     The method of claim 52 or 53 wherein activating the electrode comprises  
2     delivering radiofrequency energy from the electrode to multiple locations in the  
3     intervertebral disc.

1           61.     The method of claim 60 wherein delivering radiofrequency energy to multiple  
2     locations comprises delivering radiofrequency energy from the electrode to the multiple  
3     locations simultaneously.

1           62.     The method of claim 60 wherein delivering radiofrequency energy to multiple  
2     locations comprises delivering radiofrequency energy from the electrode to the multiple  
3     locations serially.

1           63.     The method of claim 52 or 53 further comprising advancing the electrode  
2     along an inner wall of an annulus fibrosus.

1           64.     A method comprising:  
2             advancing a radiofrequency electrode through a nucleus pulposus of an intervertebral  
3     disc beyond a central region of the nucleus pulposus, the nucleus pulposus having a volume,  
4     and  
5             activating the electrode to decrease the volume of the nucleus pulposus.

1           65.     The method of claim 64 wherein activating the electrode to decrease the  
2     volume of the nucleus pulposus reduces pressure in the intervertebral disc.

1           66.     The method of claim 64 or 65 wherein activating the electrode to decrease the  
2     volume of the nucleus pulposus comprises ablating material of the nucleus pulposus.

1           67.     The method of claim 64 wherein advancing the electrode further comprises  
2     advancing a bipolar electrode configuration.

1           68.     The method of claim 64 or 67 further comprising positioning the electrode at  
2     an inner wall of an annulus fibrosus of the intervertebral disc.

1           69.     The method of claim 64 or 67 wherein advancing the electrode  
2     comprises advancing the electrode along a curved path.

1           70.     The method of claim 64 or 65 wherein activating the electrode comprises  
2     activating the electrode while the electrode is positioned at a location adjacent an inner wall  
3     of an annulus fibrosus.

1           71.     The method of claim 64 or 65 wherein activating the electrode comprises  
2     delivering radiofrequency energy from the electrode to multiple locations in the  
3     intervertebral disc.

1           72.     The method of claim 71 wherein delivering radiofrequency energy to multiple  
2     locations comprises delivering radiofrequency energy from the electrode to the multiple  
3     locations simultaneously.

1           73.     The method of claim 71 wherein delivering radiofrequency energy to multiple  
2     locations comprises delivering radiofrequency energy from the electrode to the multiple  
3     locations serially.



1           74.     The method of claim 64 or 65 further comprising advancing the electrode  
2     along an inner wall of an annulus fibrosus.

1           75.     A method comprising:  
2             advancing a member into a nucleus pulposus of an intervertebral disc by blunt  
3     dissection, and  
4             applying radiofrequency energy from the member to remove material of the nucleus  
5     pulposus.

1           76.     The method of claim 75 wherein applying radiofrequency energy removes  
2     water of the nucleus pulposus.

1           77.     The method of claim 75 wherein applying radiofrequency energy removes  
2     disc tissue of the nucleus pulposus.

1           78.     The method of claim 76 wherein applying radiofrequency energy removes  
2     disc tissue of the nucleus pulposus.

1           79.     The method of claim 75, 76, 77, or 78 wherein applying radiofrequency  
2     energy from the member to remove material of the nucleus pulposus reduces pressure in the  
3     intervertebral disc.

1           80.     The method of claim 75, 76, 77, or 78 wherein applying radiofrequency  
2     energy from the member to remove material of the nucleus pulposus comprises ablating  
3     material of the nucleus pulposus.

1           81.     The method of claim 75, 76, 77, or 78 further comprising denervating at least  
2     a portion of the intervertebral disc with the applied radiofrequency energy.

1           82.     The method of claim 75, 76, 77, or 78 wherein advancing the member  
2     comprises advancing the member through an introducer.

1           83.     The method of claim 75, 76, 77, or 78 wherein advancing the member  
2     comprises advancing the member beyond a central region of the nucleus pulposus.

1           84.     The method of claim 75, 76, 77, or 78 wherein applying radiofrequency  
2     energy comprises applying radiofrequency energy from an electrode of the member.

1           85.     The method of claim 84 further comprising advancing the electrode beyond an  
2     introducer.

1           86.     The method of claim 84 further comprising providing the member with a  
2     bipolar electrode configuration.

1           87.     The method of claim 75 further comprising applying rotation to a proximal  
2     region of the member to rotate a distal region of the member within the nucleus pulposus.

1           88.     The method of claim 75 or 87 further comprising positioning a portion of the  
2     member at an inner wall of an annulus fibrosus of the intervertebral disc.

1           89.     The method of claim 75 or 87 wherein advancing the member  
2     comprises advancing the member along a curved path.

1           90.     The method of claim 75 further comprising providing the member with a total  
2     length between 5 and 24 inches.

1           91.     The method of claim 75 further comprising providing the member in the form  
2     of a catheter.

1           92.     The method of claim 75, 76, 77, or 78 wherein applying radiofrequency  
2     energy comprises applying radiofrequency energy to an inner wall of an annulus fibrosus.

1           93.     The method of claim 75, 76, 77, or 78 wherein applying radiofrequency  
2     energy comprises applying radiofrequency energy while the member is positioned at a  
3     location adjacent an inner wall of an annulus fibrosus.

1           94.     The method of claim 75, 76, 77, or 78 wherein applying radiofrequency  
2     energy comprises applying radiofrequency energy to multiple locations in the intervertebral  
3     disc.

1           95.     The method of claim 94 wherein applying radiofrequency energy to multiple  
2     locations comprises applying radiofrequency energy to the multiple locations simultaneously.

1           96.     The method of claim 94 wherein applying radiofrequency energy to multiple  
2     locations comprises applying radiofrequency energy to the multiple locations using separate  
3     energy delivery elements of the member.

1           97.     The method of claim 94 wherein applying radiofrequency energy to multiple  
2     locations comprises applying radiofrequency energy to the multiple locations serially.

1           98.     The method of claim 94 wherein applying radiofrequency energy to multiple  
2     locations comprises applying radiofrequency energy to the multiple locations using a single  
3     energy delivery element of the member.

1           99.     The method of claim 75, 76, 77, or 78 further comprising advancing the  
2     member along an inner wall of an annulus fibrosus.

1           100.    A method comprising:  
2            advancing a member through a nucleus pulposus of an intervertebral disc beyond a  
3            central region of the nucleus pulposus, and  
4            applying radiofrequency energy from the member to remove material of the nucleus  
5            pulposus.

1           101.   The method of claim 100 wherein applying radiofrequency energy removes  
2   water of the nucleus pulposus.

1           102.   The method of claim 100 wherein applying radiofrequency energy removes  
2   disc tissue of the nucleus pulposus.

1           103.   The method of claim 101 wherein applying radiofrequency energy removes  
2   disc tissue of the nucleus pulposus.

1           104.   The method of claim 100, 101, 102, or 103 wherein applying radiofrequency  
2   energy from the member to remove material of the nucleus pulposus reduces pressure in the  
3   intervertebral disc.

1           105.   The method of claim 100, 101, 102, or 103 wherein applying radiofrequency  
2   energy from the member to remove material of the nucleus pulposus comprises ablating  
3   material of the nucleus pulposus.

1           106.   The method of claim 100, 101, 102, or 103 further comprising denervating at  
2   least a portion of the intervertebral disc with the applied radiofrequency energy.

1           107.   The method of claim 100, 101, 102, or 103 wherein advancing the member  
2   comprises advancing the member through an introducer.

1           108.   The method of claim 100, 101, 102, or 103 wherein applying radiofrequency  
2   energy comprises applying radiofrequency energy from an electrode of the member.

1           109.   The method of claim 108 further comprising advancing the electrode beyond  
2   an introducer.

1           110.   The method of claim 108 further comprising providing the member with a  
2   bipolar electrode configuration.

1           111.    The method of claim 100 further comprises applying rotation to a proximal  
2   region of the member to rotate a distal region of the member within the nucleus pulposus.

1           112.    The method of claim 100 or 111 further comprising positioning a portion of  
2   the member at an inner wall of an annulus fibrosus of the intervertebral disc.

1           113.    The method of claim 100 or 111 wherein advancing the member comprises  
2   advancing the member along a curved path.

1           114.    The method of claim 100 further comprising providing the member with a  
2   total length between 5 and 24 inches.

1           115.    The method of claim 100 further comprising providing the member in the  
2   form of a catheter.

1           116.    The method of claim 100, 101, 102, or 103 wherein applying radiofrequency  
2   energy comprises applying radiofrequency energy to an inner wall of an annulus fibrosus.

1           117.    The method of claim 100, 101, 102, or 103 wherein applying radiofrequency  
2   energy comprises applying radiofrequency energy while the member is positioned at a  
3   location adjacent an inner wall of an annulus fibrosus.

1           118.    The method of claim 100, 101, 102, or 103 wherein applying radiofrequency  
2   energy comprises applying radiofrequency energy to multiple locations in the intervertebral  
3   disc.

1           119.    The method of claim 118 wherein applying radiofrequency energy to multiple  
2   locations comprises applying radiofrequency energy to the multiple locations simultaneously.

1           120.    The method of claim 118 wherein applying radiofrequency energy to multiple  
2   locations comprises applying radiofrequency energy to the multiple locations using separate  
3   energy delivery elements of the member.

1           121.    The method of claim 118 wherein applying radiofrequency energy to multiple  
2   locations comprises applying radiofrequency energy to the multiple locations serially.

1           122.    The method of claim 118 wherein applying radiofrequency energy to multiple  
2   locations comprises applying radiofrequency energy to the multiple locations using a single  
3   energy delivery element of the member.

1           123.    The method of claim 100, 101, 102, or 103 further comprising advancing the  
2   member along an inner wall of an annulus fibrosus.

1           124.    A method comprising:  
2           advancing a radiofrequency electrode into a nucleus pulposus of an intervertebral disc  
3   by blunt dissection, and  
4           activating the electrode to remove material of the nucleus pulposus.

1           125.    The method of claim 124 wherein activating the electrode to remove material  
2   of the nucleus pulposus reduces pressure in the intervertebral disc.

1           126.    The method of claim 124 or 125 wherein activating the electrode to remove  
2   material of the nucleus pulposus comprises ablating material of the nucleus pulposus.

1           127.    The method of claim 124 or 125 wherein advancing the electrode comprises  
2   advancing the electrode beyond a central region of the nucleus pulposus.

1           128.    The method of claim 124 wherein advancing the electrode further comprises  
2   advancing a bipolar electrode configuration.

1           129.    The method of claim 124 or 128 further comprising positioning the electrode  
2   at an inner wall of an annulus fibrosus of the intervertebral disc.

1           130.    The method of claim 124 or 128 wherein advancing the electrode  
2 comprises advancing the electrode along a curved path.

1           131.    The method of claim 124 or 125 wherein activating the electrode comprises  
2 activating the electrode while the electrode is positioned at a location adjacent an inner wall  
3 of an annulus fibrosus.

1           132.    The method of claim 124 or 125 wherein activating the electrode comprises  
2 delivering radiofrequency energy from the electrode to multiple locations in the  
3 intervertebral disc.

1           133.    The method of claim 132 wherein delivering radiofrequency energy to  
2 multiple locations comprises delivering radiofrequency energy from the electrode to the  
3 multiple locations simultaneously.

1           134.    The method of claim 132 wherein delivering radiofrequency energy to  
2 multiple locations comprises delivering radiofrequency energy from the electrode to the  
3 multiple locations serially.

1           135.    The method of claim 124 or 125 further comprising advancing the electrode  
2 along an inner wall of an annulus fibrosus.

1           136.    A method comprising:  
2           advancing a radiofrequency electrode through a nucleus pulposus of an intervertebral  
3 disc beyond a central region of the nucleus pulposus, and  
4           activating the electrode to remove material of the nucleus pulposus.

1           137.    The method of claim 136 wherein activating the electrode to remove material  
2 of the nucleus pulposus reduces pressure in the intervertebral disc.

1           138.    The method of claim 136 or 137 wherein activating the electrode to remove  
2 material of the nucleus pulposus comprises ablating material of the nucleus pulposus.

1           139.    The method of claim 136 wherein advancing the electrode further comprises  
2    advancing a bipolar electrode configuration.

1           140.    The method of claim 136 or 139 further comprising positioning the electrode  
2    at an inner wall of an annulus fibrosus of the intervertebral disc.

1           141.    The method of claim 136 or 139 wherein advancing the electrode  
2    comprises advancing the electrode along a curved path.

1           142.    The method of claim 136 or 137 wherein activating the electrode comprises  
2    activating the electrode while the electrode is positioned at a location adjacent an inner wall  
3    of an annulus fibrosus.

1           143.    The method of claim 136 or 137 wherein activating the electrode comprises  
2    delivering radiofrequency energy from the electrode to multiple locations in the  
3    intervertebral disc.

1           144.    The method of claim 143 wherein delivering radiofrequency energy to  
2    multiple locations comprises delivering radiofrequency energy from the electrode to the  
3    multiple locations simultaneously.

1           145.    The method of claim 143 wherein delivering radiofrequency energy to  
2    multiple locations comprises delivering radiofrequency energy from the electrode to the  
3    multiple locations serially.

1           146.    The method of claim 136 or 137 further comprising advancing the electrode  
2    along an inner wall of an annulus fibrosus.

1           147.    The method of claim 1 wherein advancing the member into the nucleus  
2    pulposus comprises conforming the member sufficiently to an inner wall of an annulus  
3    fibrosus to contact multiple locations on the inner wall.